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FILE COVERS 1907 - 14 Jun 2009  VOL 150 ISS 25
FILE LAST UPDATED: 12 Jun 2009  (20090612/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Feb 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Feb 2009

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

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http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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L3              STR
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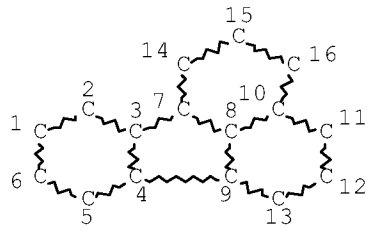


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ECOUNT  IS UNLIMITED  AT  14 15 16

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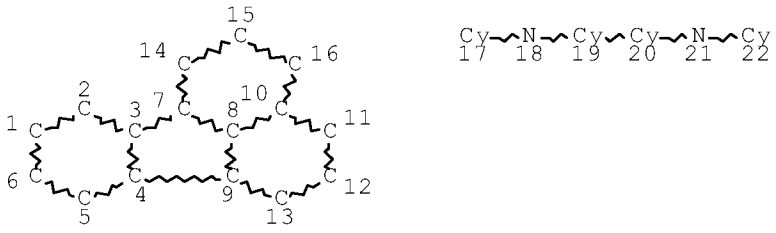

NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED
ECOUNT IS UNLIMITED AT 14 15 16

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NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
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L8 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

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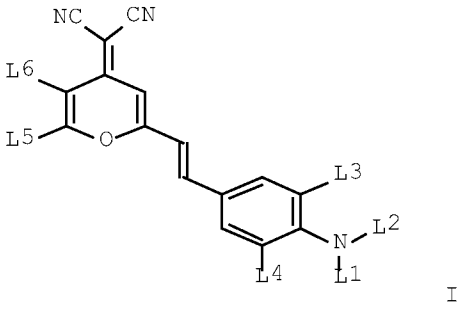
L8 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:830563 HCAPLUS Full-text
DOCUMENT NUMBER: 149:115859
TITLE: Red-emitting organic electroluminescent device containing styrylpyran-doped polycyclic aromatic hydrocarbon phosphor and display therewith
INVENTOR(S): Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukuda, Toshihiro; Onishima, Yasunori
PATENT ASSIGNEE(S): Sony Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 35pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008159779	A	20080710	JP 2006-346069	20061222

PRIORITY APPLN. INFO.: JP 2006-346069 20061222
OTHER SOURCE(S): MARPAT 149:115859
GI



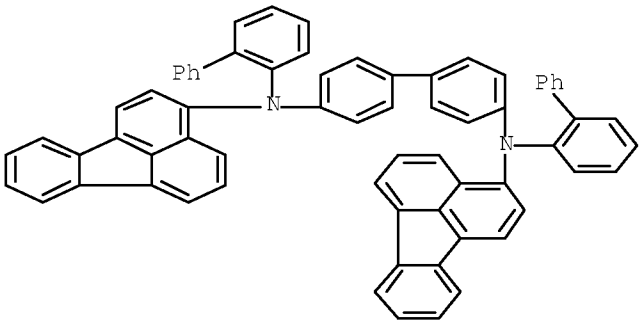
I

AB The organic electroluminescent device has, between anode and cathode, organic layers involving (A) emitting layer containing red-emitting guest I [L1-L6 = H, C≤20 alkyl(oxy), C≤20 alkenyl, cyano, nitro, C≤30 silyl, C≤30 aryl, C≤30 heterocyclic, C≤30 amino] in 4-7-membered ring-based polycyclic aromatic hydrocarbon host and (B) the neighboring sensitizing layer containing another guest with emission wavelength shorter than that of A (e.g., blue- or green-emitting guest). Full-color display equipped with plural electroluminescent devices as above has high color purity and light emission efficiency.

IT 851767-82-3
RL: MOA (Modifier or additive use); USES (Uses)
(guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing styrylpyran-doped polycyclic aromatic hydrocarbon phosphor for display)

RN 851767-82-3 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-2-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



L8 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:830561 HCAPLUS Full-text

DOCUMENT NUMBER: 149:115858

TITLE: Red-emitting organic electroluminescent device containing pyrromethene complex-doped polycyclic aromatic hydrocarbon phosphor and display therewith

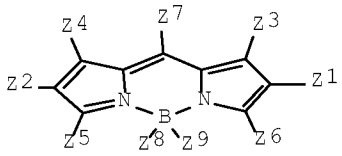
INVENTOR(S): Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukuda, Toshihiro; Onishima, Yasunori

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008159777	A	20080710	JP 2006-346067	20061222

PRIORITY APPLN. INFO.: JP 2006-346067 20061222
OTHER SOURCE(S): MARPAT 149:115858
GI



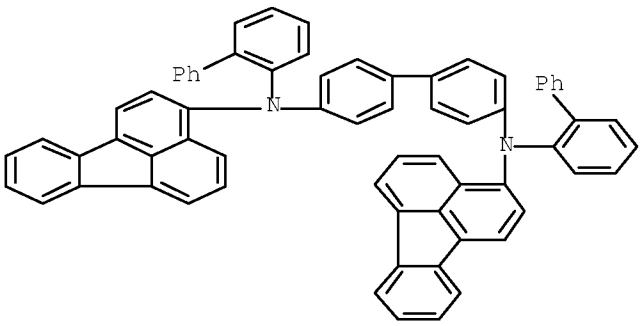
I

AB The organic electroluminescent device has, between anode and cathode, organic layers involving (A) emitting layer containing red-emitting guest I (Z1-Z9 = H, halo, C≤20 alkyl, C≤20 alkenyl, C≤20 alkoxy, cyano, nitro, C≤30 silyl, C≤30 aryl, C≤30 heterocyclic, C≤30 amino) in 4-7-membered ring-based polycyclic aromatic hydrocarbon host and (B) the neighboring sensitizing layer containing another guest with emission wavelength shorter than that of A (e.g., blue- or green-emitting guest). Full-color display equipped with plural electroluminescent devices as above has high color purity and light emission efficiency.

IT 851767-82-3
RL: MOA (Modifier or additive use); USES (Uses)
(guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing pyrromethene-doped polycyclic aromatic hydrocarbon phosphor for display)

RN 851767-82-3 HCAPLUS

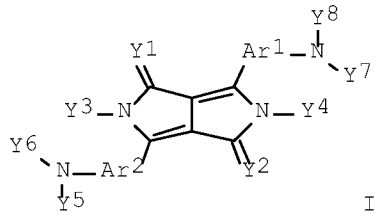
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-2-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



L8 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:830556 HCAPLUS Full-text
DOCUMENT NUMBER: 149:115857
TITLE: Red-emitting organic electroluminescent device containing diketopyrrolopyrrole-doped polycyclic aromatic hydrocarbon phosphor and display therewith
INVENTOR(S): Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukuda, Toshihiro; Onishima, Yasunori
PATENT ASSIGNEE(S): Sony Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 36pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008159776	A	20080710	JP 2006-346066	20061222

PRIORITY APPLN. INFO.: JP 2006-346066 20061222
OTHER SOURCE(S): MARPAT 149:115857
GI

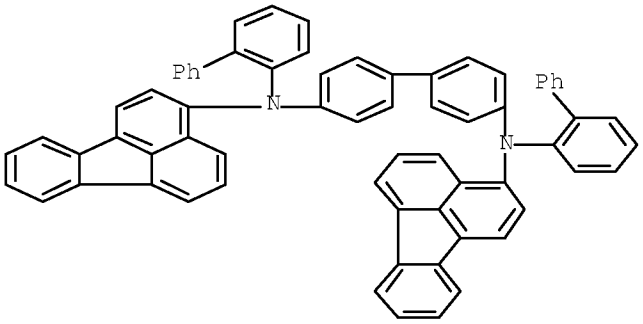


I

AB The organic electroluminescent device has, between anode and cathode, organic layers involving (A) emitting layer containing red-emitting guest I [Y1, Y2 = O, imino; Y3-Y8 = H, halo, C≤20 alkyl, C≤20 alkenyl, C≤30 aryl, C≤30 heterocyclic, C≤30 amino; Ar1, Ar2 = aromatic hydrocarbylene, divalent aromatic heterocyclic ring] in 4-7-membered ring-based polycyclic aromatic hydrocarbon host and (B) the neighboring sensitizing layer containing another guest with emission wavelength shorter than that of A (e.g., blue- or green-emitting guest). Full-color display equipped with plural electroluminescent devices as above has high color purity and light emission efficiency.

IT 851767-82-3
RL: MOA (Modifier or additive use); USES (Uses)
(guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing diketopyrrolopyrrole-doped polycyclic aromatic hydrocarbon phosphor for display)

RN 851767-82-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-2-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)

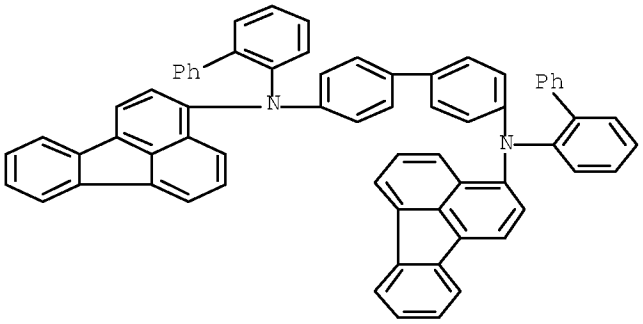


L8 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:830554 HCAPLUS Full-text
DOCUMENT NUMBER: 149:115856
TITLE: Red-emitting organic electroluminescent device containing aromatic styryl compound-doped polycyclic aromatic hydrocarbon phosphor and display therewith
INVENTOR(S): Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukuda, Toshihiro; Onishima, Yasunori
PATENT ASSIGNEE(S): Sony Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 36pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008159775	A	20080710	JP 2006-346065	20061222
PRIORITY APPLN. INFO.:			JP 2006-346065	20061222
OTHER SOURCE(S):	MARPAT 149:115856			

AB The organic electroluminescent device has, between anode and cathode, organic layers involving (A) emitting layer containing red-emitting guest T1CH:CHT4NT2T3 [T1-T3 = C≤30 aryl, C≤30 heterocyclic; T4 = (un)substituted phenylene (cyclized with T2 and T3)] in 4-7-membered ring-based polycyclic aromatic hydrocarbon host and (B) the neighboring sensitizing layer containing another guest with emission wavelength shorter than that of A (e.g., blue- or green-emitting guest). Full-color display equipped with plural electroluminescent devices as above has high color purity and light emission efficiency.

IT 851767-82-3
RL: MOA (Modifier or additive use); USES (Uses)
(guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing aromatic styryl compound-doped polycyclic aromatic hydrocarbon phosphor for display)
RN 851767-82-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-2-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



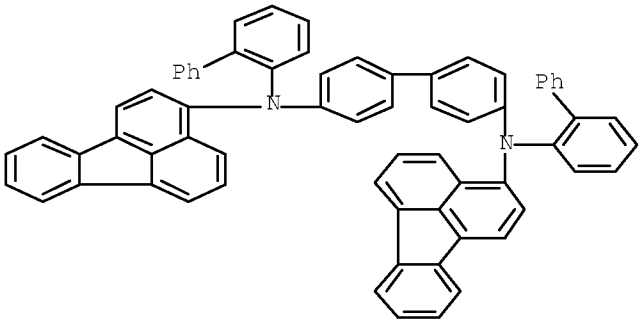
L8 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:800285 HCAPLUS Full-text
DOCUMENT NUMBER: 149:139926
TITLE: Organic electroluminescent device and display
INVENTOR(S): Matsunami, Shigeyuki; Kurotaki, Masayuki; Fukuda, Toshihiro; Kijima, Yasunori
PATENT ASSIGNEE(S): Sony Corporation, Japan
SOURCE: U.S. Pat. Appl. Publ., 29pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080157657	A1	20080703	US 2007-959694	20071219
JP 2008159778	A	20080710	JP 2006-346068	20061222
JP 4254856	B2	20090415		

PRIORITY APPLN. INFO.: JP 2006-346068 A 20061222
OTHER SOURCE(S): MARPAT 149:139926

AB According to an embodiment of the present invention, there is provided an organic electroluminescent device for emitting red light having an organic layer that includes a light-emitting layer and is provided between an anode and a cathode. The light-emitting layer contains a red light-emitting guest material and a host material that is composed of a polycyclic aromatic hydrocarbon compound having a skeleton with four- to seven-membered rings. Furthermore, a light-enhancing layer that contains a light-emitting guest material for generating light having a wavelength shorter than that of light emitted by the light-emitting layer is provided adjacent to the light-emitting layer.

IT 851767-82-3
RL: TEM (Technical or engineered material use); USES (Uses)
(light-emitting guest material; organic electroluminescent device and display containing)
RN 851767-82-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-2-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



L8 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:646371 HCAPLUS Full-text
DOCUMENT NUMBER: 148:596279
TITLE: Five-membered heterocyclic amine-based organic light-emitting compound having a good solubility, a high color purity and a high thermal stability and organic light-emitting device comprising the compounds, and method of manufacturing the organic light emitting device
INVENTOR(S): Shin, Dong-Woo; Han, Eun-Sil; Paek, Woon-Jung; Lyu, Yi-Yeol; Kwon, O-Hyun; Kim, Myeong-Suk; Choi, Byoung-Ki; Son, Jhun-Mo; Son, Young-Mok
PATENT ASSIGNEE(S): Samsung Electronics Co., Ltd., S. Korea
SOURCE: U.S. Pat. Appl. Publ., 23pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080122344	A1	20080529	US 2007-756105	20070531
KR 2008047210	A	20080528	KR 2006-117251	20061124
PRIORITY APPLN. INFO.:			KR 2006-117251 A	20061124
OTHER SOURCE(S):	MARPAT 148:596279			

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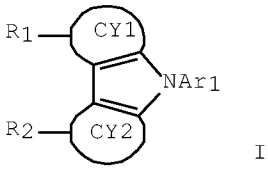


I

AB Provided are five-membered heterocyclic amine-based organic light emitting compound represented by Formula (I) below, an organic light emitting device comprising the compds., and a method of manufacturing the light emitting

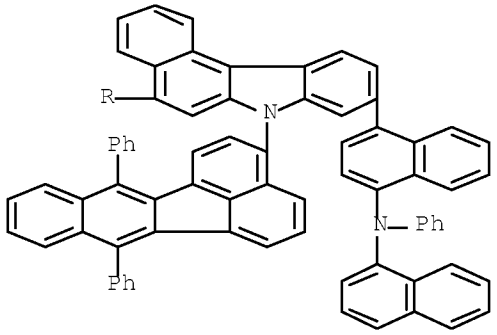
device, where CY1, CY2, Ar1, R1 and R2 are described in the detailed description of the invention. An organic light emitting device comprising the organic light emitting compound has low turn-on voltage, high efficiency, high color purity and high luminance.

IT 1028353-14-1
RL: TEM (Technical or engineered material use); USES (Uses)
(five-membered heterocyclic amine-based organic light-emitting compds. and OLED comprising compds.)

RN 1028353-14-1 HCAPLUS

CN 7H-Benzo[c]carbazol-5-amine, 7-(7,12-diphenylbenzo[k]fluoranthen-3-yl)-N-1-naphthalenyl-9-[4-(1-naphthalenylphenylamino)-1-naphthalenyl]-N-phenyl- (CA INDEX NAME)

PAGE 1-A



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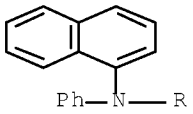


L8 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:305868 HCAPLUS Full-text

DOCUMENT NUMBER: 148:459139

TITLE: Near-infrared organic light emitting diodes based on heavy metal phthalocyanines

AUTHOR(S): Rosenow, Thomas Conrad; Walzer, Karsten; Leo, Karl

CORPORATE SOURCE: Institut fur Angewandte Photophysik, Technische Universitat Dresden, Dresden, D-01062, Germany

SOURCE: Journal of Applied Physics (2008), 103(4), 043105/1-043105/4
CODEN: JAPIAU; ISSN: 0021-8979

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal

LANGUAGE: English

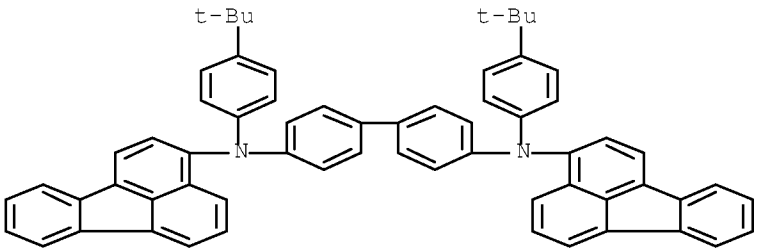
AB Near-IR (NIR) organic LEDs containing the phthalocyanines of Cu (CuPc), Pd (PdPc), and Pt (PtPc) as emitting material are demonstrated. The devices show NIR emission from the triplet excitonic states of those phthalocyanines at 1095, 1025, and 966 nm, resp. A yellow singlet emitter serves as host for the

emitter materials, reducing triplet exciton quenching and improving energy transfer to the emitter. Using the emitter PtPc as guest and the yellow singlet emitter as host, an external quantum efficiency of 0.3% is achieved for IR light emission at 966 nm. Due to the use of elec. doped charge transport layers, operation at voltages significantly <3 V is possible. Light output reaches 80 μW/cm2 at a c.d. of 140 mA/cm2. (c) 2008 American Institute of Physics.

IT 1019655-49-2
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(near-IR organic LEDs based on heavy metal phthalocyanines and)

RN 1019655-49-2 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis[4-(1,1-dimethylethyl)phenyl]-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:170094 HCAPLUS Full-text

DOCUMENT NUMBER: 144:222330

TITLE: Electroluminescent chrysene derivatives, and organic electroluminescent devices and displays comprising them in emission layers

INVENTOR(S): Matsunami, Shigeyuki; Miyabayashi, Yoshihisa; Ichimura, Mari; Tamura, Shinichiro

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006052324	A	20060223	JP 2004-235124	20040812

PRIORITY APPLN. INFO.: JP 2004-235124 20040812

OTHER SOURCE(S): MARPAT 144:222330

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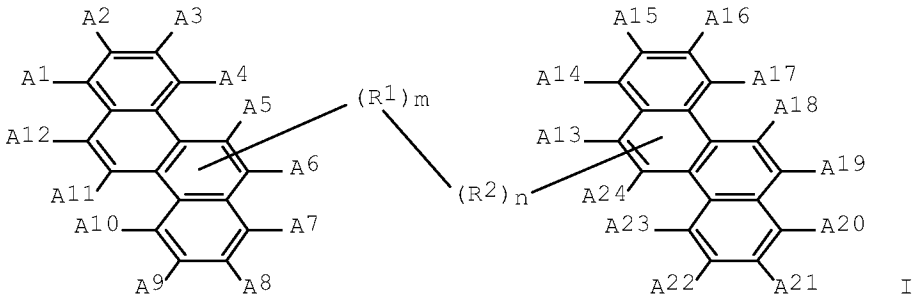


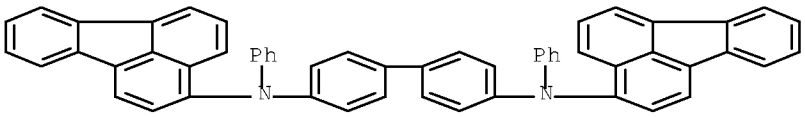
I

AB Claimed are I [A1-24 = H, halo, OH, C≤20 (substituted) carbonyl (ester), alkyl, alkenyl, etc.; R1-2 = C≤30 (substituted) aryl, heterocycle; m, n = integer of 0-2; m + n = 1-4]. The compds. can be included as electron-transport agents or hole-transport agents, and the devices/displays show high emission efficiency and long service life.

IT 851767-73-2
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(dopant; in electroluminescent chrysene derivs. for organic electroluminescent devices/displays)

RN 851767-73-2 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)

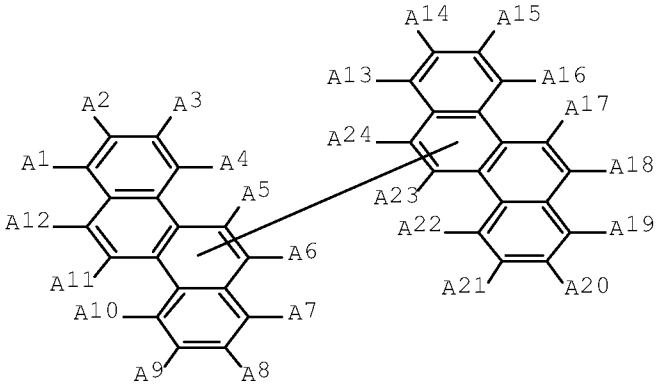


L8 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:170087 HCAPLUS Full-text
DOCUMENT NUMBER: 144:222329
TITLE: Electroluminescent bichrysenes, and organic electroluminescent devices and displays comprising them in emission layers
INVENTOR(S): Matsunami, Shigeyuki; Miyabayashi, Yoshihisa; Ichimura, Mari; Tamura, Shinichiro
PATENT ASSIGNEE(S): Sony Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006052323	A	20060223	JP 2004-235123	20040812

PRIORITY APPLN. INFO.: JP 2004-235123 20040812

OTHER SOURCE(S): MARPAT 144:222329
GI



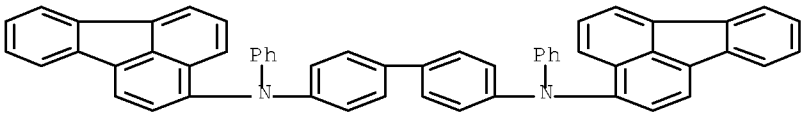
I

AB Claimed are the bichrysenes I [A1-24 = H, halo, OH, C≤20 (substituted) carbonyl (ester), alkyl, alkenyl, etc.]. The bichrysenes can be included as electron-transport agents or hole-transport agents, and the devices/displays show high emission efficiency and long service life.

IT 851767-73-2
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(dopant; in electroluminescent bichrysenes for organic electroluminescent devices/displays)

RN 851767-73-2 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



L8 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:103375 HCAPLUS Full-text
DOCUMENT NUMBER: 144:191951
TITLE: Aromatic amines with low solvation
INVENTOR(S): Hirsch, Jason
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2006011880	A1	20060202	WO 2004-US21140	20040630

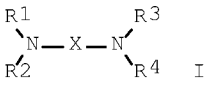
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: WO 2004-US21140 20040630

OTHER SOURCE(S): MARPAT 144:191951

GI



I

AB A process for preparing a polymorph of a N,N,N',N'-tetraaryldiamins represented by Q1-G-Q2 (Q1 and Q2 are independently selected aromatic tertiary amine moieties; G is a bond or a linking group) or by I [each R1, R3, R4 is an independently selected aryl or naphthyl group; R2 is independently selected aryl group; X is (R5)n, R5 is an independently selected arylene group, or 4,4'-biphenyl linking group, n = 0-4] having low solvation is developed. The process enables to reduce solvation levels in the polymorph. by crystallization of the diamine from a solvent comprising a hydrocarbon to form a solvated polymorph, mixing the amine with an alc., distillation of the mixture to remove the solvent, and repeating second and third steps until the desired level of low solvation is achieved. Thus, 4,4"-bis[N-(1-naphthyl)-N-(2-naphthyl)amino]biphenyl was prepared from N-1-naphthyl-N-2-naphthylamine, subjected to the process of polymorph preparation and showed low solvation and an absence of solvent incorporated in the crystal lattice be X-ray diffraction anal.

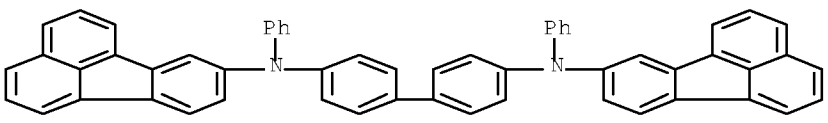
IT 139255-23-5

RL: PRPH (Prophetic)

(Aromatic amines with low solvation)

RN 139255-23-5 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-8-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:101234 HCAPLUS Full-text
DOCUMENT NUMBER: 144:170774
TITLE: Process for forming an aromatic amine compound
INVENTOR(S): Mc Garry, Lynda, Woedy; Spara, Paul, Patrick; Wang, Ruizheng
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

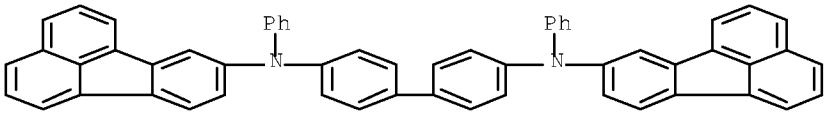
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006011879	A1	20060202	WO 2004-US21137	20040630

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: WO 2004-US21137 20040630
OTHER SOURCE(S): CASREACT 144:170774; MARPAT 144:170774

AB A process for forming an aromatic amine product comprises the steps of (a) combining an aromatic primary or secondary initial amine with an aromatic halide compound in the presence of a palladium complex and a phosphine compound catalyst to form a mixture; (b) heating the mixture to a first temperature of at least 60°C; (c) adding a base material to the heated mixture; and (d) maintaining the temperature of the mixture at or above the first temperature for a period of time sufficient to form as a product an aromatic substituted form of the aromatic primary or secondary initial amine. The process provides aromatic amine products of high purity in good yields. These aromatic amine compds. may be incorporated in an electroluminescent device (EL) device with a hole-transporting layer containing them (no data). Thus, N-1-Naphthyl-N-2-naphthylamine 12.7, 4,4'-diiodobiphenyl 9.8, palladium(II) acetate 0.150 Kg, and toluene 140 Kg were combined in a vessel, followed by bubbling N through the mixture for 30 min to remove oxygen and adding 0.6 kg tri-tert-butylphosphine as a 20 weight% solution in toluene with stirring. The resulting mixture was heated to 75° over 1 h, treated with 29.4 kg Na tert-butoxide over 25 min as a 20 weight% solution in THF, heated to 80° and held at that temperature for 3 h to give, after workup, treatment with silica gel and carbon in toluene/cyclohexane, and crystallization from methanol, 4,4'-bis[N-(1-naphthyl)-N-(2- naphthyl)amino]biphenyl (7.0 Kg, 43.5 % yield, 99% purity according to HPLC anal., halide content 0.002 weight%, and palladium content ≤0.0003 weight%).

IT 139255-23-5
RL: PRPH (Prophetic)
(Process for forming an aromatic amine compound)
RN 139255-23-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-8-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

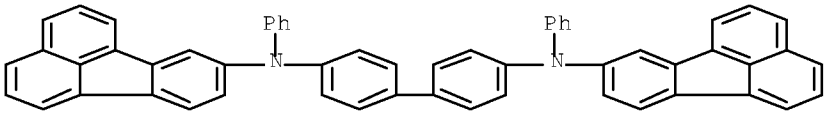
L8 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:100883 HCAPLUS Full-text
DOCUMENT NUMBER: 144:195370
TITLE: Molecular photovoltaics, method of manufacture and articles derived therefrom
INVENTOR(S): Gui, John Yupeng; Spivack, James Lawrence; Duggal, Anil Raj; Cella, James Anthony; Alizadeh, Azar; Yakimov, Aharon
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060021647	A1	20060202	US 2004-900624	20040728
EP 1630883	A2	20060301	EP 2005-254258	20050707
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2006049890	A	20060216	JP 2005-216748	20050727
CN 1734792	A	20060215	CN 2005-10087971	20050728
PRIORITY APPLN. INFO.:			US 2004-900624 A	20040728

AB Disclosed herein is a photovoltaic cell comprising an absorber that can absorb electromagnetic radiation; a 1st substrate comprising a 1st conductive surface; a 2nd substrate comprising a 2nd conductive surface that is opposed to the 1st conductive surface and faces the 1st conductive surface of the 1st substrate; an electron transporter that is in elec. communication with the 2nd conductive surface of the 2nd substrate, but is elec. insulated from the 1st substrate; a hole transporter that is in elec. communication with the 1st conductive surface of the 1st substrate, but is elec. insulated from the 2nd substrate; wherein the hole transporter and/or the electron transporter are chemical bonded to an elec. insulating sheath; and wherein the hole transporter and/or the electron transporter are chemical bonded to the absorber.

IT 139255-23-5
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(conducting polymer and hole and electron transport in mol. photovoltaic materials and devices)

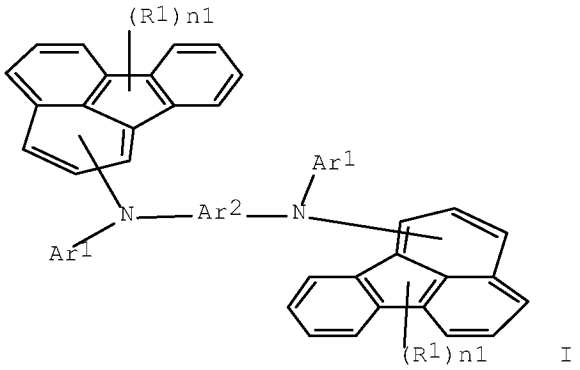
RN 139255-23-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-8-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



L8 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:429504 HCAPLUS Full-text
DOCUMENT NUMBER: 142:472274
TITLE: Organic light-emitting material and its preparation method
INVENTOR(S): Takada, Ichinori; Ueda, Naoyuki
PATENT ASSIGNEE(S): Sony Corporation, Japan
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005044943	A1	20050519	WO 2004-JP16803		20041105
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
JP 2006096964	A	20060413	JP 2004-315486		20041029
CN 1906267	A	20070131	CN 2004-80040055		20041105
TW 287039	B	20070921	TW 2004-93133920		20041105
KR 2006113913	A	20061103	KR 2006-708606		20060503
US 20070149815	A1	20070628	US 2006-595710		20060525
PRIORITY APPLN. INFO.:			JP 2003-377904	A	20031107
			JP 2004-255344	A	20040902
			JP 2004-315486	A	20041029
			WO 2004-JP16803	W	20041105

OTHER SOURCE(S): MARPAT 142:472274
GI



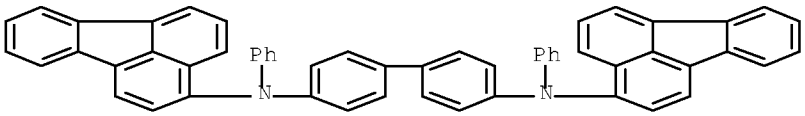
I

AB Disclosed is an organic light-emitting material which is characterized by being represented by the general formula I and used in a light-emitting layer of a green light-emitting device. In the general formula I, n1 is an integer of not less than 1 and not more than 3; R1 represents an alkyl group having 10 or less carbon atoms; Ar1 represents a monovalent group which is derived from a monocyclic or condensed-ring aromatic hydrocarbon having 20 or less carbon atoms, and may have a substituent having 10 or less carbon atoms; and Ar2 represents a divalent group which is derived from a ring assembly including 1-3 rings, having 30 or less carbon atoms and being constituted by a monocyclic or condensed-ring aromatic hydrocarbon, and may have a substituent having 4 or less carbon atoms. Consequently, there is provided a more highly reliable organic light-emitting material with sufficiently good luminous efficiency and color purity which is suitable for constituting a green light-emitting layer. Also disclosed is a method for producing such an organic light-emitting material.

IT 851767-73-2P 851767-74-3P 851767-75-4P
851767-77-6P 851767-78-7P 851767-80-1P
851767-82-3P 851767-83-4P 851767-84-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(organic light-emitting material and preparation method)

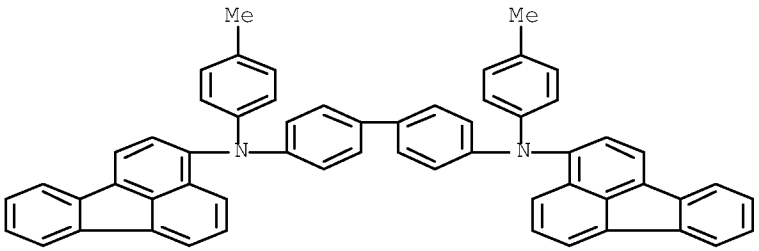
RN 851767-73-2 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)

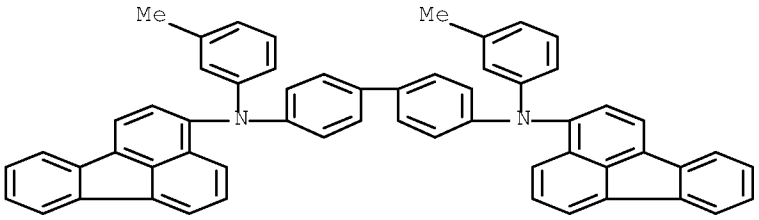


RN 851767-74-3 HCAPLUS

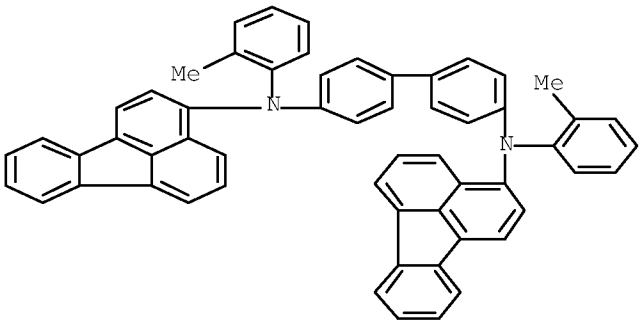
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-bis(4-methylphenyl)- (CA INDEX NAME)



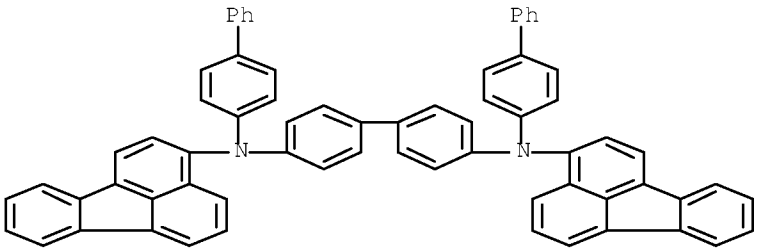
RN 851767-75-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-bis(3-methylphenyl)- (CA INDEX NAME)



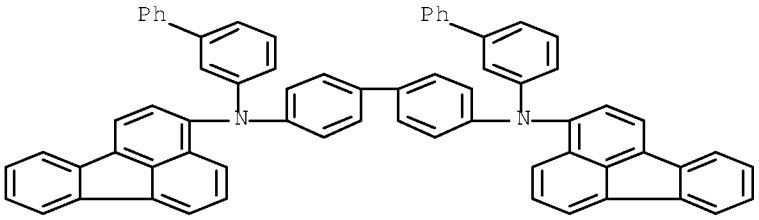
RN 851767-77-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-bis(2-methylphenyl)- (CA INDEX NAME)



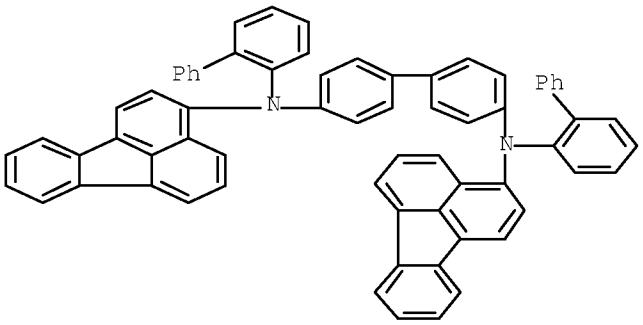
RN 851767-78-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-4-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



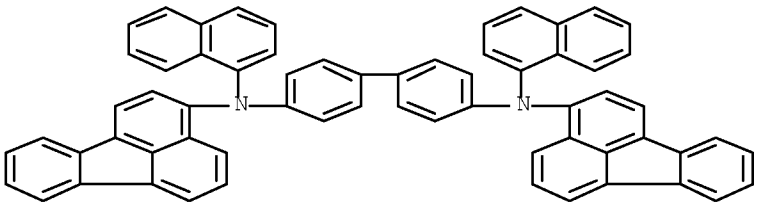
RN 851767-80-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-3-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



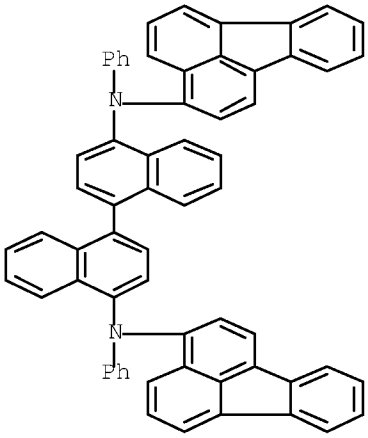
RN 851767-82-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-2-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



RN 851767-83-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-di-1-naphthalenyl- (CA INDEX NAME)



RN 851767-84-5 HCAPLUS
CN [1,1'-Binaphthalene]-4,4'-diamine,
N4,N4'-di-3-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:429503 HCAPLUS Full-text
DOCUMENT NUMBER: 142:472316
TITLE: Organic electroluminescent device and display
INVENTOR(S): Ueda, Naoyuki; Takada, Ichinori
PATENT ASSIGNEE(S): Sony Corporation, Japan
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005044942	A1	20050519	WO 2004-JP16794	20041105

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

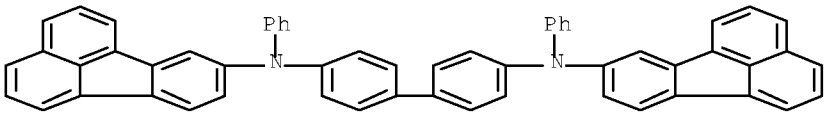
JP 2006100756	A	20060413	JP 2004-315487		20041029
TW 247553	B	20060111	TW 2004-93133918		20041105
EP 1690912	A1	20060816	EP 2004-799645		20041105
R: DE, FR, GB					
CN 1902296	A	20070124	CN 2004-80039888		20041105
US 20080278065	A1	20081113	US 2006-595563		20060427 (current application)
KR 2006122832	A	20061130	KR 2006-708733		20060504
PRIORITY APPLN. INFO.:			JP 2003-377905	A	20031107
			JP 2004-252263	A	20040831
			JP 2004-315487	A	20041029
			WO 2004-JP16794	W	20041105

OTHER SOURCE(S): MARPAT 142:472316

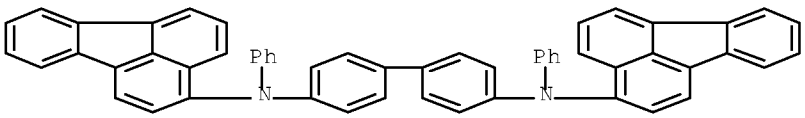
AB An organic electroluminescent device is characterized in that it emits green light by containing a fluoranthene derivative in a light-emitting layer. The fluoranthene derivative is introduced into the light-emitting layer as a guest material, and the green organic electroluminescent device can have sufficiently good luminous efficiency and color purity and can be more reliable by using an organic material having a fluorescent spectrum overlapping the absorption spectrum of the fluoranthene derivative, such as an aryl anthracene derivative, as the host material.

IT 139255-23-5 851767-73-2 851767-74-3
851767-75-4 851767-77-6 851767-82-3
851767-83-4 851767-84-5 851768-03-1
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(organic electroluminescent device and display)

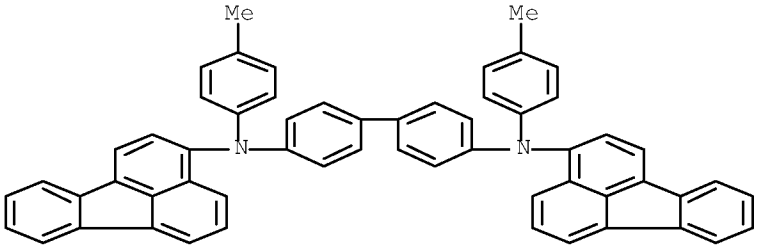
RN 139255-23-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-8-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



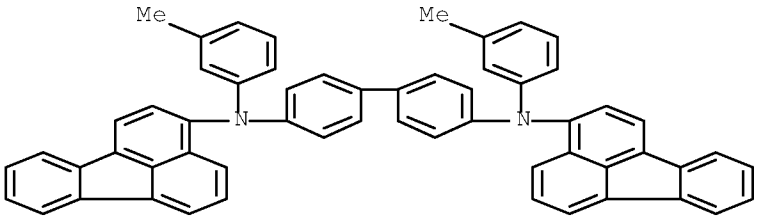
RN 851767-73-2 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



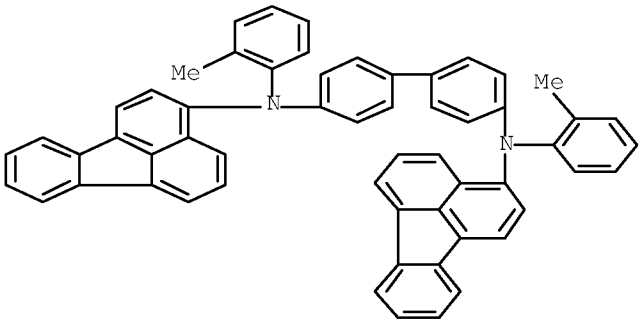
RN 851767-74-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-bis(4-methylphenyl)- (CA INDEX NAME)



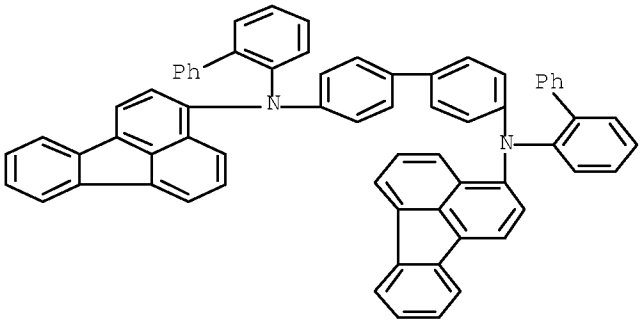
RN 851767-75-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-bis(3-methylphenyl)- (CA INDEX NAME)



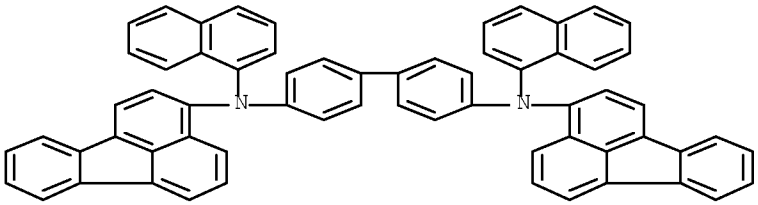
RN 851767-77-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-bis(2-methylphenyl)- (CA INDEX NAME)



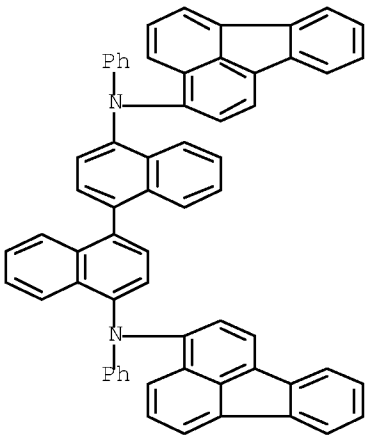
RN 851767-82-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis([1,1'-biphenyl]-2-yl)-N4,N4'-di-3-fluoranthenyl- (CA INDEX NAME)



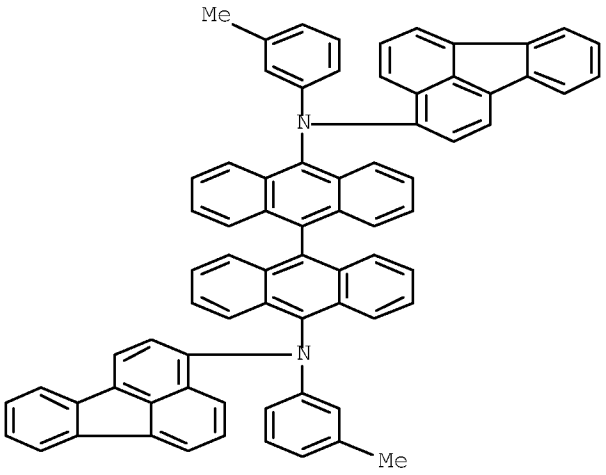
RN 851767-83-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-di-1-naphthalenyl- (CA INDEX NAME)



RN 851767-84-5 HCAPLUS
CN [1,1'-Binaphthalene]-4,4'-diamine, N4,N4'-di-3-fluoranthenyl-N4,N4'-diphenyl- (CA INDEX NAME)



RN 851768-03-1 HCAPLUS
CN [9,9'-Bianthracene]-10,10'-diamine, N10,N10'-di-3-fluoranthenyl-N10,N10'-bis(3-methylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1992:416860 HCAPLUS Full-text
DOCUMENT NUMBER: 117:16860
ORIGINAL REFERENCE NO.: 117:2955a,2958a
TITLE: Electroluminescent device with organic electroluminescent medium
INVENTOR(S): VanSlyke, Steven A.; Tang, Ching W.; O'Brien, Michael E.; Chen, Chin H.
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

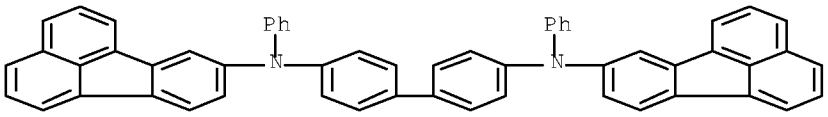
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5061569	A	19911029	US 1990-561552	19900726
CA 2046135	A1	19920127	CA 1991-2046135	19910703
CA 2046135	C	19961210		
JP 05234681	A	19930910	JP 1991-186312	19910725
JP 2851185	B2	19990127		
EP 468528	A1	19920129	EP 1991-112621	19910726
EP 468528	B1	19950621		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
PRIORITY APPLN. INFO.: US 1990-561552 A 19900726
OTHER SOURCE(S): MARPAT 117:16860

AB Internal junction organic electroluminescent devices are described which comprise an anode, an organic hole-injecting and -transporting layer, an organic electron-injecting and -transporting layer, and a cathode in which the hole-injecting and -transporting zone employs a hole-transporting aromatic tertiary amine comprising ≥2 tertiary amine moieties and includes an aromatic moiety containing ≥2 fused aromatic rings which is attached to a tertiary amine N atom.

IT 139255-23-5

RL: PRP (Properties)
(electroluminescent devices with hole-transporting layers from)
RN 139255-23-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-8-fluoranthenyl-N4,N4'-diphenyl-
(CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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